

**IN THE DRAWINGS**

Please find corrected drawings for Figures 2A, 2B, 2C and 2D submitted in compliance with 37 C.F.R. 1.85.

**IN THE CLAIMS**

Please cancel claim 1 without prejudice or disclaimer.

Please amend claims 11, 36-39, 41, and 44.

For the Examiner's convenience, all pending claims are listed below. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

11. (Once Amended) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:

- C2  
M.D.L/T
- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
  - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1 and having phosphatidylinositol 4,5-bisphosphate 5-phosphatase activity, and
  - c) an immunogenic fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1.

30. A diagnostic test for a condition or disease associated with the expression of PBPP in a biological sample comprising the steps of:

- a) combining the biological sample with an antibody of claim 11, under conditions suitable for the antibody to bind the polypeptide and form an antibody:polypeptide complex; and
- b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

N.E. DPL-CH  
31. The antibody of claim 11, wherein the antibody is:

- a) a chimeric antibody,
- b) a single chain antibody,
- c) a Fab fragment,
- d) a F(ab')<sub>2</sub> fragment, or
- e) a humanized antibody.

32. A composition comprising an antibody of claim 11 and an acceptable excipient.

33. A method of diagnosing a condition or disease associated with the expression of PBPP in a subject, comprising administering to said subject an effective amount of the composition of claim 32.

34. A composition of claim 32, wherein the antibody is labeled.

*N.E.  
DPL/CLK*

35. A method of diagnosing a condition or disease associated with the expression of PBPP in a subject, comprising administering to said subject an effective amount of the composition of claim 34.

*M/DL*

36. (Once Amended) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 11, the method comprising:

- C3*
- a) immunizing an animal with a polypeptide having an amino acid sequence of SEQ ID NO:1 or an immunogenic fragment thereof, under conditions to elicit an antibody response;
  - b) isolating antibodies from said animal; and
  - c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide having an amino acid sequence of SEQ ID NO:1.

37. (Once Amended) A polyclonal antibody produced by a method of claim 36.

38. (Once Amended) A composition comprising the polyclonal antibody of claim 37 and a suitable carrier.

*C4*

39. (Once Amended) A method of making a monoclonal antibody with the specificity of the antibody of claim 11, the method comprising:

- a) immunizing an animal with a polypeptide having an amino acid sequence of SEQ ID NO:1 or an immunogenic fragment thereof, under conditions to elicit an antibody response;
- b) isolating antibody producing cells from the animal;
- c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells;
- d) culturing the hybridoma cells; and
- e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide having an amino acid sequence of SEQ ID NO:1.

*W.E. O'Farrell* 40. A monoclonal antibody produced by a method of claim 39.

*C5 D3* 41. (Once Amended) A composition comprising the monoclonal antibody of claim 40 and a suitable carrier.

*W.E. O'Farrell* 42. The antibody of claim 11, wherein the antibody is produced by screening a Fab expression library.

43. The antibody of claim 11, wherein the antibody is produced by screening a recombinant immunoglobulin library.

*C6 D8* 44. (Once Amended) A method for detecting a polypeptide having an amino acid sequence of SEQ ID NO:1 in a sample, the method comprising:

- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide having an amino acid sequence of SEQ ID NO:1 in the sample.

*W.E. O'Farrell* 45. A method of purifying a polypeptide having an amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) separating the antibody from the sample and obtaining the purified polypeptide having an amino acid sequence of SEQ ID NO:1.